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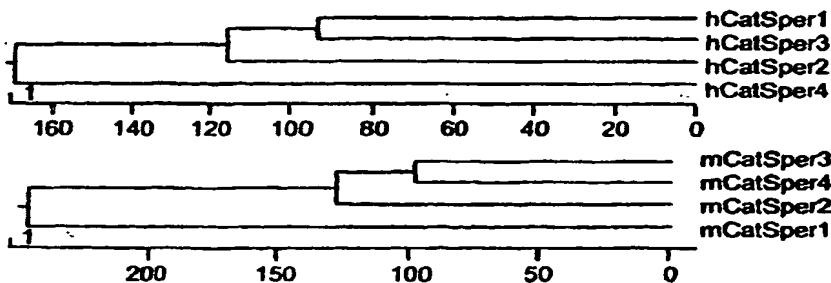
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*[Continued on next page]*

(54) Title: SPERM-SPECIFIC CATION CHANNEL, CATSPER-3, AND USES THEREFOR



hCatSper3 and hCatSper1 are 21% identical  
hCatSper3 and hCatSper2 are 22% identical  
hCatSper4 and hCatSper1 are 17% identical  
hCatSper4 and hCatSper2 are 21% identical

mCatSper3 and mCatSper1 are 20% identical  
mCatSper3 and mCatSper2 are 22% identical  
mCatSper4 and mCatSper1 are 22% identical  
mCatSper4 and mCatSper2 are 22% identical

hCatSper1 and mCatSper1 are 48% identical  
hCatSper2 and mCatSper2 are 71% identical  
hCatSper3 and mCatSper3 are 68% identical  
hCatSper4 and mCatSper4 are 65% identical

(57) Abstract: Nucleic acid and protein sequences relating to a cation channel which is sperm-specific (CatSper3) are disclosed. The CatSper3 protein is shown to be specifically expressed in sperm. Nucleic acids, vectors, transformed cells, transgenic animals, polypeptides, and antibodies relating to the CatSper3 gene and protein are disclosed. Also provided are methods of in vitro fertilization and contraception, methods of identifying modulators of CatSper3 activity, methods of genotyping subjects with respect to CatSper3, and methods of diagnosing and treating CatSper3-mediated disorders, including infertility. Related business methods are also disclosed.